

STD PREVENTION PARTNERSHIP FACTLINE

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Age is the Best Screening Criterion for Chlamydial Infection

Reference: CA Gaydos, RM Howell, B Pare, KL Clark, DA Ellis, RM Hendrix, JC Gaydos, KT McKee, TC Quinn
Chlamydia Trachomatis Infections in Female Military Recruits. New England Journal of Medicine. 1998; 339(11):739-744.

BACKGROUND: To design a chlamydia control program, a prevalence study and risk factor analysis was conducted among female U.S. Army recruits. The study was performed to determine the extent of infection among recruits and assess what criteria would be useful for a screening program.

DISCUSSION: 13,204 women, ranging in age from 17 to 39, were tested. The overall prevalence of chlamydial infection within this group was 9.2%, with a peak of 12.2% among the 17-year old recruits. The prevalence declined dramatically among older women; only 5% of the women over 25 tested positive.

There was considerable variation in the prevalence of chlamydial infection according to the recruits' state of origin. The prevalence was more than 15% for recruits from South Carolina, Georgia, Alabama, Louisiana, and Mississippi. For New Jersey, North Carolina, Kentucky, Texas, Oklahoma, and Arkansas, the prevalence was 10-15%, and for 17 other states and Puerto Rico, it was 5-10%. For Washington, Oregon, Minnesota, Arizona, and Massachusetts, the prevalence was less than 5%.

The study identified ten variables significantly associated with chlamydial infection: 1) young age (17 to 25 years); 2) black race; 3) race other than white or black; 4) ever having had vaginal sex; 5) having had more than one sex partner in the previous 90 days; 6) having had a new sex partner in the previous 90 days; 7) having had a partner who did not always use condoms in the previous 90 days; 8) a prior diagnosis for gonorrhea; 9) a prior diagnosis of trichomonas; and 10) a history of any sexually transmitted disease.

Of these ten variables, it was determined that age is the most important factor. Among the Army recruits, if age alone were the sole screening criterion, 87.9% of the Army recruit population would be tested, and 95.3% of the positive subjects would be identified. Using age as the sole screening criterion is more equitable than using race and more reliable than determining sexual history through a self-reported questionnaire, as questionnaires are not always valid.

The study does not conclusively determine whether the prevalence of risk factors for chlamydial infection differs between young women who decide to join the military and those who do not. However, the demographic and sexual risk-factor characteristics of the subjects appear to be similar to those of other regional and clinic-based populations. Therefore, the conclusion that age is the best criterion is likely to hold true in civilian screening programs.

CONCLUSION: The study's findings indicate that young age (25 years or less) is the best criterion on which to base a screening program for female Army recruits, and perhaps for other young women. As chlamydia infections are asymptomatic in up to 80% of young women, instituting screening programs has the potential to drastically reduce the serious, long-term consequences of chlamydia, such as pelvic inflammatory disease, infertility, and ectopic pregnancy.

By Johanna Chapin

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